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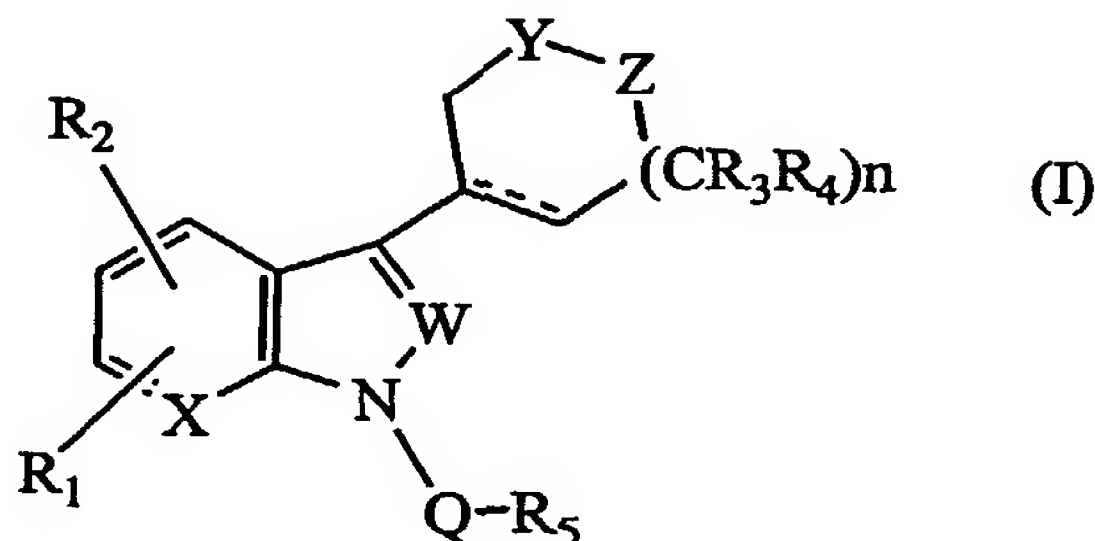
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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: HETEROCYCLINDAZOLE AND AZAINDAZOLE COMPOUNDS AS 5-HYDROXYTRYPTAMINE-6 LIGANDS



(57) Abstract: The present invention provides a compound of formula (I) and the use thereof in the therapeutic treatment of disorders related to or affected by the 5-HT<sub>6</sub> receptor.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/US 01/47935

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D403/04 C07D401/04 C07D471/04 A61P25/00 A61K31/435  
 A61K31/44 A61K31/40 //(C07D403/04,209:00,207:00),  
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According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D A61K

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 98 23587 A (ALLELIX BIOPHARMA) 4 June 1998 (1998-06-04) page 3, line 14 - line 15; claim 1; examples 18A,23 ---	1,3-5, 7-11,18
X	ZHENG Q ET AL : "Palladium catalyzed cross-coupling reaction between 3-indole boronic acids and tetrahydropyridine triflates" TETRAHEDRON LETTERS ELSEVIER SCIENCE PUBLISHERS AMSTERDAM NL, vol. 34, no. 14, 1993, pages 2235-2238, XP001085184 examples 8-11 --- -/--	1-10



Further documents are listed in the continuation of box C.



Patent family members are listed in annex.

° Special categories of cited documents :

- \*A\* document defining the general state of the art which is not considered to be of particular relevance
- \*E\* earlier document but published on or after the international filing date
- \*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- \*O\* document referring to an oral disclosure, use, exhibition or other means
- \*P\* document published prior to the international filing date but later than the priority date claimed

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- \*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- \*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- \*&\* document member of the same patent family

Date of the actual completion of the international search

2 July 2002

Date of mailing of the international search report

21/08/2002

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## INTERNATIONAL SEARCH REPORT

International Application No  
PCT/US 01/47935

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ZHENG Q ET AL: "Vinylolation of the indole 3-position via palladium-catalyzed cross-coupling" HETEROCYCLES, vol. 37, no. 3, 1994, page 1761-1772 XP002204320 JP examples 10-13 ---	1-10
X	SCHUT R N ET AL : "2-Tetrahydropyridylindoles as Histamine and Serotonin Antagonists" JOURNAL OF MEDICINAL CHEMISTRY, vol. 13, no. 3, 1970, page 394-397 XP002204321 USA example 9 ---	1-5, 7-10
X	BUSACCA C A ET AL: "A Facile Synthesis of 4-Aryl-2,3-Dihydropyrroles" TETRAHEDRON LETTERS, ELSEVIER SCIENCE PUBLISHERS, AMSTERDAM, NL, vol. 37, no. 23, 3 June 1996 (1996-06-03), pages 3947-3950, XP004029267 ISSN: 0040-4039 examples 8-11 ---	1-10
X	WO 00 63203 A (ALLELIX BIOPHARMA) 26 October 2000 (2000-10-26) claim 1 ---	1
A	SLEIGHT ET AL: "The 5-hydroxytryptamine-6 receptor: localisation and function" EXPERT OPINION ON THERAPEUTIC PATENTS, ASHLEY PUBLICATIONS, GB, vol. 8, no. 10, 1 October 1998 (1998-10-01), pages 1217-1224, XP002093843 ISSN: 1354-3776 the whole document -----	1

# INTERNATIONAL SEARCH REPORT

national application No.  
PCT/US 01/47935

## Box I Observations where certain claims were found unsearchable (Continuation of item 1 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 13-17 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compounds.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box II Observations where unity of invention is lacking (Continuation of item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

**INTERNATIONAL SEARCH REPORT**  
 information on patent family members

International Application No  
 PCT/US 01/47935

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
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